



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,752	01/23/2002	Kazuki Tsuchimoto	020617	9920

23850 7590 01/28/2004

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

GOFF II, JOHN L

ART UNIT	PAPER NUMBER
1733	10

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,752

Applicant(s)

TSUCHIMOTO ET AL.

Examiner

John L. Goff

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6 and 10-15, drawn to a method manufacturing a polarizing film, classified in class 156, subclass 308.2.
 - II. Claims 7-9, drawn to a polarizer, classified in class 359, subclass 483.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as by casting a protective lacquer on a polarizer and curing the protective layer.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with Mr. Nicolas E. Seckel on 3/14/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6 and 10-15.

Art Unit: 1733

Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-6 and 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 requires "laminating a protective film (B) onto at least one face of a polarizer (A) and thermocompression bonding". However, it appears from the specification (See Figures 1A-2C and their description on pages 11 and 12) that the protective film is not laminated per se to the polarizer until after thermocompression bonding such that the use of the term "laminating" appears to describe a step of contacting the protective film and polarizer. It is suggested to change "laminating" to - - contacting - - as supported by the Figures.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong et al. (U.S. Patent 3,322,601).

Wong et al. disclose a process for manufacturing a polarizing panel (i.e. film). Wong et al. teach forming a lay-up (i.e. analogous to the laminating/contacting step) comprising providing a bottom transparent, protective film (e.g. formed of styrene polymer, vinyl polymer, etc.), placing a polarizer (e.g. formed of foamed plastic such as polystyrene, methacrylate, etc.) on top of the bottom protective film, and placing a top transparent, protective film (e.g. formed of styrene polymer, vinyl polymer, etc.) on top of the polarizer. Wong et al. teach placing the lay-up in a press and applying simultaneous heat (not less than 90 °C) and pressure (i.e. thermocompression where the heat is applied from a side of the protective films) to the lay-up to bond the layers together (Figures 1-3 and Column 2, lines 64-72 and Column 3, lines 1, 8-15, 31-43, and 58-68).

12. Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kahn et al. (U.S. Patent 3,772,128).

Kahn et al. disclose a process for manufacturing a polarizing panel (i.e. film). Kahn et al. teach the process comprises extruding a plastic sheet (e.g. formed of methacrylate, polystyrene, vinyls, etc.), contacting a polarizer (e.g. formed of foamed plastic such as polystyrene) with the

Art Unit: 1733

extruded sheet, contacting a preformed, protective film (e.g. formed of styrene polymer, vinyl polymer, etc.) with the polarizer to form a lay-up, and passing the lay-up through a pair of nip rollers to thermocompression bond (i.e. bonding under pressure from the nip rollers and heat, not less than 90 °C, from the extruded sheet where the heat is applied to a side of the protective film) the layers together (Figure 1 and Column 1, lines 65-68 and Column 2, lines 10-19 and 47-53 and Column 3, lines 9-15 and 23-29).

13. Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Arond et al. (U.S. Patent 3,208,902).

Arond et al. disclose a process for manufacturing a polarizing film. Arond et al. teach forming a lay-up (i.e. analogous to the laminating/contacting step) comprising providing a bottom protective plastic film, placing a first layer of adhesive on top of the bottom protective film, placing a polarizer on top of the first layer of adhesive, placing a second layer of adhesive on top of the polarizer, and placing a top protective plastic film on top of the second layer of adhesive. Arond et al. teach placing the lay-up in a press and applying simultaneous heat and pressure (i.e. thermocompression where the heat is applied from a side of the protective films) to the lay-up to cure the adhesive and bond the layers together (Figure 1 and Column 2, lines 13-15 and 30-34 and Column 3, lines 2-6 and 34-36 and Column 4, lines 32-36). It is noted that claim 1 does not exclude the use of adhesive in bonding the protective films to the polarizer.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 3, 5, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al.

The teachings of Wong et al. are described above in paragraph 11. It is noted Wong et al. are silent as to all possible laminating conditions. However, Wong et al. are not limited to any particular laminating conditions, and Wong et al. teach the laminating conditions are experimentally determined/optimized as a function of the properties of the individual laminating layers such as their thickness. It would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine/optimize the laminating conditions such as heat applied, pressure applied, time applied, etc. as a function of the individual properties of the laminate such as the thickness of the layers and their material type as doing so would have

Art Unit: 1733

required nothing more than ordinary skill and routine experimentation and only the expected results would be achieved.

17. Claims 3, 5, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn et al.

The teachings of Kahn et al. are described above in paragraph 12. It is noted Kahn et al. are silent as to all possible laminating conditions. However, Kahn et al. are not limited to any particular laminating conditions such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine/optimize the laminating conditions such as heat applied, pressure applied, time applied, etc. as a function of the individual properties of the laminate such as the thickness of the layers and their material type as doing so would have required nothing more than ordinary skill and routine experimentation and only the expected results would be achieved.

18. Claims 3-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arond et al.

The teachings of Arond et al. are described above in paragraph 13. It is noted Arond et al. are silent as to all possible laminating conditions. However, Arond et al. are not limited to any particular laminating conditions, and Arond et al. teach the laminating conditions are experimentally determined/optimized as a function of the properties of the individual laminating layers such as their material type. It would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine/optimize the laminating conditions such as heat applied, pressure applied, time applied, etc. as a function of the individual properties of the laminate such as the thickness of the layers and their material type as

Art Unit: 1733

doing so would have required nothing more than ordinary skill and routine experimentation and only the expected results would be achieved.

19. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. as applied in paragraph 11 above, and further in view of Raabe et al. (U.S. Patent 4,370,374).

Wong et al. as applied above teach all of the limitations in claims 11-15 except for a particular teaching of using as the protective film one which is formed of two layers having different softening points. However, it is noted Wong et al. are not limited to using any particular protective film, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the protective film taught by Wong et al. the protective film taught by Raabe et al. which comprises at least two layers having different softening points to provide the plastic foamed polarizer of Wong et al. with a protective film that has excellent bonding properties with foamed plastic bodies.

Raabe et al. disclose a multilayer plastic film useful as a protective film for foamed plastic bodies. Raabe et al. teach the multilayer film forms an excellent bond directly with the foamed plastic bodies (i.e. the bond does not require the use of adhesives) that is free of blisters. Raabe et al. teach the multilayer film comprises at least two layers having different softening points wherein the low softening point layer has a softening point not less than 90 °C and the difference between softening points of the layers is not less than 10 °C (Column 1, lines 26-28 and 44-66 and Column 2, lines 47-50 and Column 4, lines 35-44).

Art Unit: 1733

20. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn et al. as applied in paragraph 12 above, and further in view of Raabe et al.

Kahn et al. as applied above teach all of the limitations in claims 11-15 except for a particular teaching of using as the protective film one which is formed of two layers having different softening points. However, it is noted Kahn et al. are not limited to using any particular protective film, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the protective film taught by Kahn et al. the protective film taught by Raabe et al. (the teachings of Raabe et al. are described in paragraph 19) which comprises at least two layers having different softening points to provide the plastic foamed polarizer of Kahn et al. with a protective film that has excellent bonding properties with foamed plastic bodies.

21. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arond et al. as applied in paragraph 13 above, and further in view of Raabe et al.

Arond et al. as applied above teach all of the limitations in claims 11-15 except for a particular teaching of using as the protective film one which is formed of two layers having different softening points. However, it is noted Arond et al. are not limited to using any particular protective film, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the protective film taught by Arond et al. any of the well known and conventional protective films in the art such as the protective film taught by Raabe et al. as only the expected results would be achieved.

Art Unit: 1733

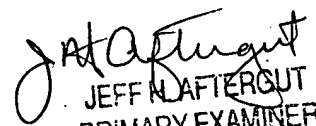
Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



John L. Goff
January 23, 2004



JEFF N. AFTERSUT
PRIMARY EXAMINER
GROUP 1300